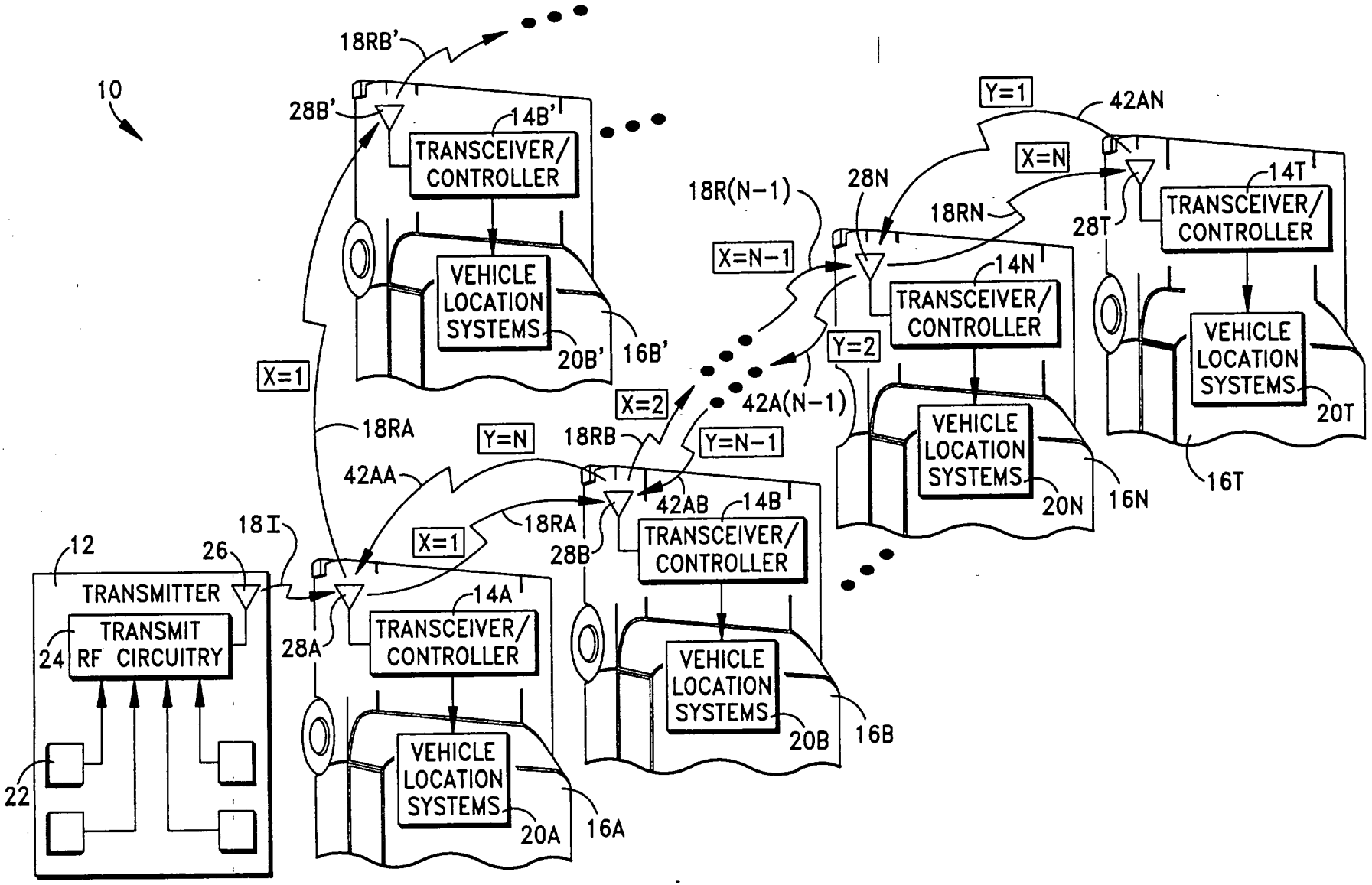
10
18RB'
28B'
14B'
TRANSCEIVER/
CONTROLLER
VEHICLE
LOCATION
SYSTEMS
20B'
16B'
X=1
18RA
Y=N
18RB
X=2
42A(N-1)
Y=N-1
42AA
42AB
14B
18I
12
26
X=1
18RA
28B
TRANSMITTER
TRANSMIT
RF CIRCUITRY
24
28A
14A
TRANSCEIVER/
CONTROLLER
VEHICLE
LOCATION
SYSTEMS
20A
16A
22
20B
16B
18R(N-1)
X=N-1
28N
18RN
Y=1
42AN
X=N
14N
TRANSCEIVER/
CONTROLLER
Y=2
VEHICLE
LOCATION
SYSTEMS
20N
16N
28T
14T
TRANSCEIVER/
CONTROLLER
VEHICLE
LOCATION
SYSTEMS
20T
16T

Fig.1

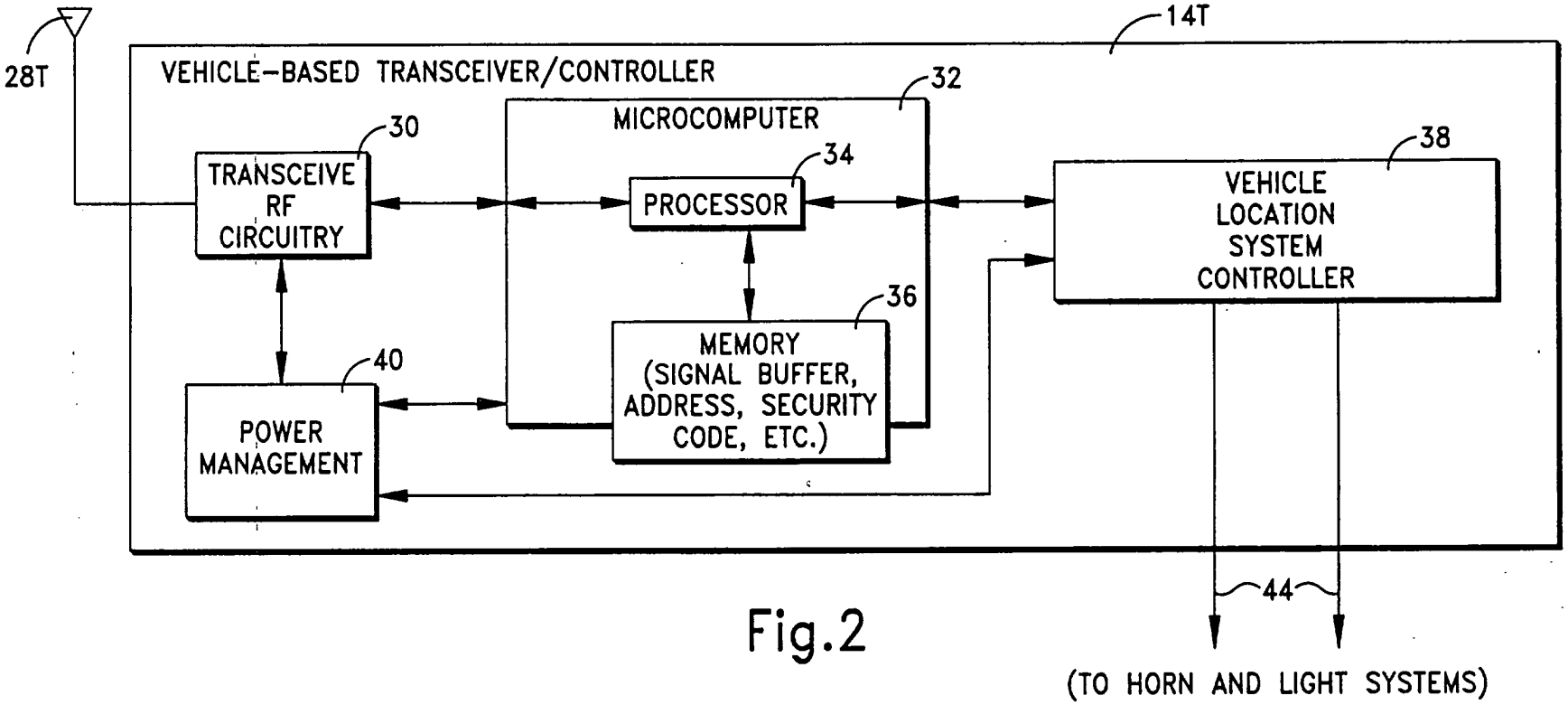
28T
14T
VEHICLE-BASED TRANSCEIVER/CONTROLLER
32
MICROCOMPUTER
30
TRANSCEIVE RF CIRCUITRY
34
PROCESSOR
38
VEHICLE LOCATION SYSTEM CONTROLLER
36
MEMORY (SIGNAL BUFFER, ADDRESS, SECURITY CODE, ETC.)
40
POWER MANAGEMENT
44
(TO HORN AND LIGHT SYSTEMS)

Fig.2

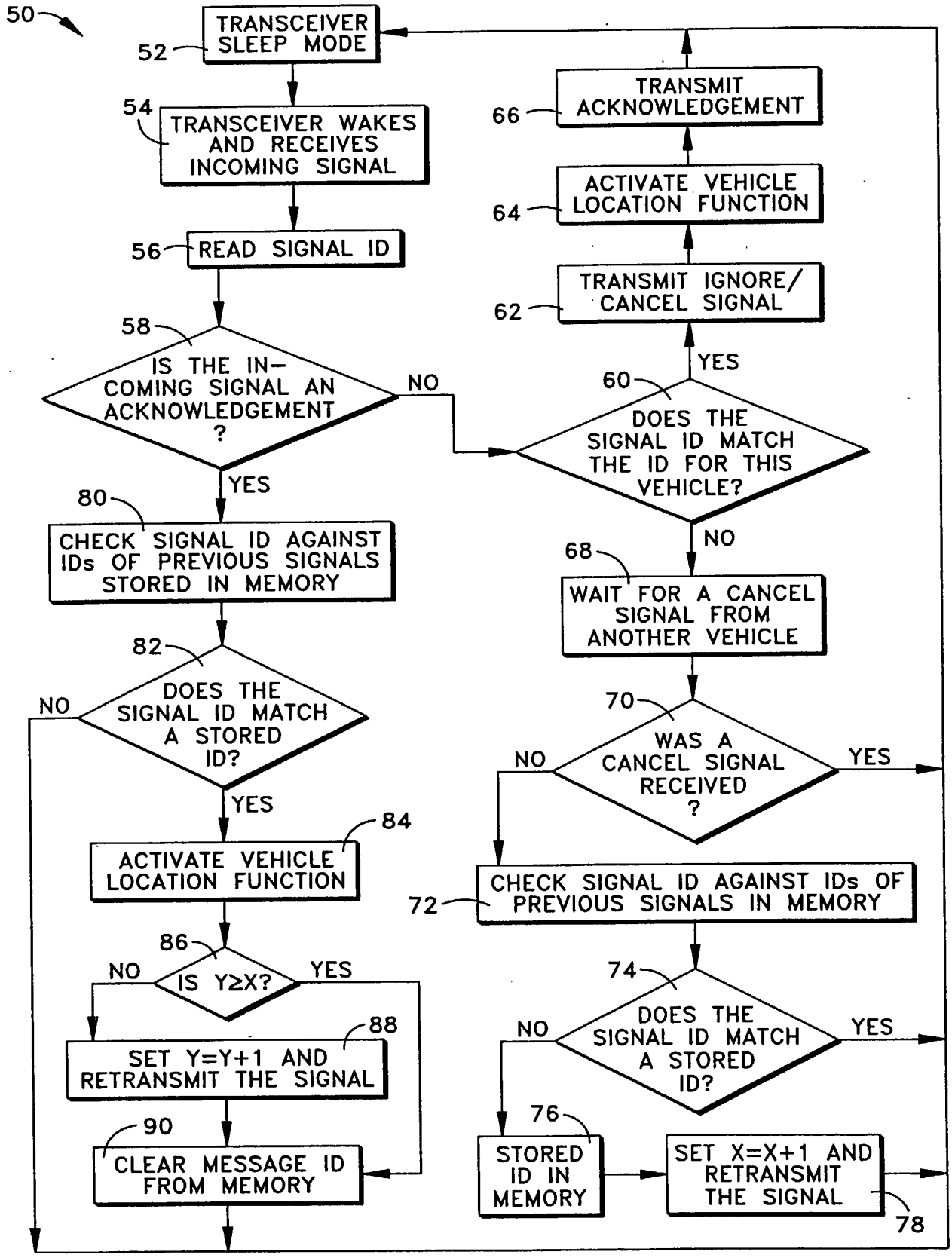
50
TRANSCEIVER SLEEP MODE
52
TRANSCEIVER WAKES AND RECEIVES INCOMING SIGNAL
54
READ SIGNAL ID
56
IS THE IN-COMING SIGNAL AN ACKNOWLEDGEMENT ?
58
NO
YES
DOES THE SIGNAL ID MATCH THE ID FOR THIS VEHICLE?
60
YES
NO
TRANSMIT IGNORE/ CANCEL SIGNAL
62
ACTIVATE VEHICLE LOCATION FUNCTION
64
TRANSMIT ACKNOWLEDGEMENT
66
WAIT FOR A CANCEL SIGNAL FROM ANOTHER VEHICLE
68
WAS A CANCEL SIGNAL RECEIVED ?
70
NO
YES
CHECK SIGNAL ID AGAINST IDs OF PREVIOUS SIGNALS IN MEMORY
72
DOES THE SIGNAL ID MATCH A STORED ID?
74
NO
YES
STORED ID IN MEMORY
76
SET X=X+1 AND RETRANSMIT THE SIGNAL
78
CHECK SIGNAL ID AGAINST IDs OF PREVIOUS SIGNALS STORED IN MEMORY
80
DOES THE SIGNAL ID MATCH A STORED ID?
82
NO
YES
ACTIVATE VEHICLE LOCATION FUNCTION
84
IS Y≥X?
86
NO
YES
SET Y=Y+1 AND RETRANSMIT THE SIGNAL
88
CLEAR MESSAGE ID FROM MEMORY
90

Fig.3